

SEU AND SEFI FAULT TOLERANT COMPUTER

ABSTRACT OF THE DISCLOSURE

A non-hardened processor is made fault tolerant to SEUs and SEFIs. A processor is provided utilizing time redundancy to detect and respond to SEUs. Comparison circuitry is provided in a radiation hardened module to provide special redundancy with the need to run additional processors. Additionally, a hardened SEFI circuit is provided to periodically send a signal to the process which, in the case of a processor not in the SEFI state, initiates production by the processor of a "correct" response. If the correct response is not received within a particular time window, the SEFI circuit initiates progressively severe actions until a reset is achieved.